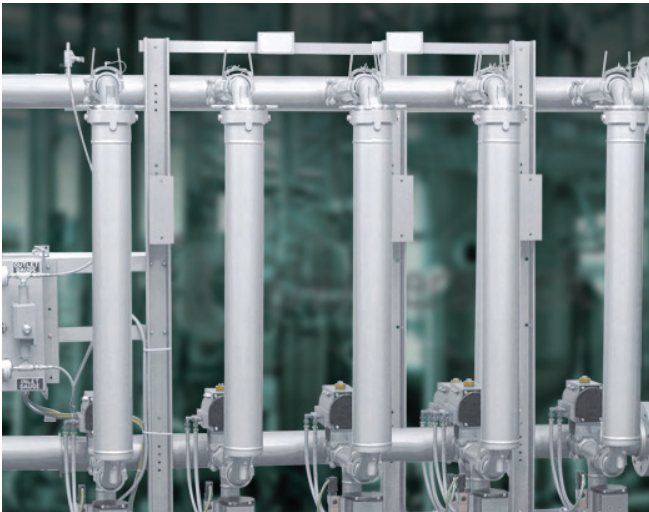


Tubular Backwashing Filter

AFC, AFR & F-Series

Reduce Waste,
Improve Process
Efficiency
& Increase
Product Quality



Industry Leading Family of Solutions

Eaton offers a full line of tubular backwashing solutions to meet your specific application demands and business needs. From the high-capacity AFR-Series for high flow in a compact footprint, to our simple single tube AFC-Series

for stand-alone applications with low solids loading, there is an Eaton solution for any process. All Eaton filters are engineered for the best performance and value in every application.

TUBULAR BACKWASHING FEATURES & BENEFITS

- Tight retentions (as low as 1 micron) with high flow rates—ideal for a wide range of process liquids and parameters
- Eliminates the need for disposable media including bags and cartridges—reduces disposal costs, materials loss, labor, and inventory
- Choice of configurations—available solutions to optimize your system for almost any filtration challenge
- Modular scalable systems—your system can grow with your application demands
- Automated clean-in-place operation—optimizes cleaning frequency and reduces labor demands
- Wide range of operating pressures—capable of reliable operation and performance up to 1,000 psi (69 bar)

Barrier Filtration

Barrier filtration uses either stainless steel or a fabric screen, selected for its retention and flow properties. This filtration media, within the filter housing, collects debris on its surface because the liquid flows inward. Contaminants on the surface slowly form a barrier, capable of removing smaller particles.

Backwash Cleaning

The core principle behind backwashing, when automated, is that the filters are designed to initiate a backwash sequence when the differential pressure reaches its set point. The flow of liquid is reversed, dislodging the debris that has built up on the surface of the filter media. A drain header, located at the base of the filter, provides an outlet for the debris to be purged from the system.

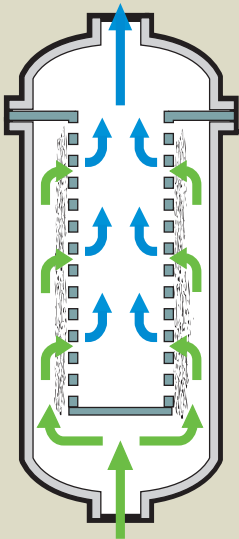
TYPICAL APPLICATIONS

- city water lines • hot condensate • chiller water • fresh water
- whitewater / shower water • cip fluids • papermaking wet end starch • pelletizer water • single and duo tubular filters for a wide range of applications up to 1000 psi and high viscosity applications

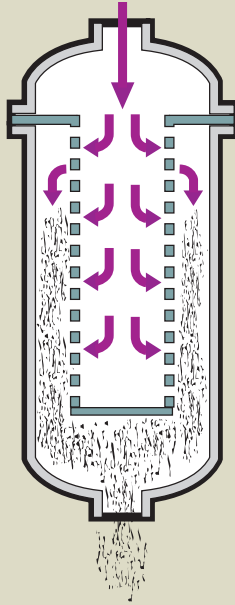


Powering Business Worldwide

Tubular Backwashing Filter



Process liquid flows into the housing inlet at its base and passes across the filter media from the outside inward. Because of this flow path, contaminants collect on the outside of the filter element slowly forming a cake, removing smaller particles.



During backwash, triggered by time or pressure differential, a valve switches one station's flow from the inlet header to the drain header and the direction of the flow is reversed in the filter tube, dislodging contaminants from the media surface. The source of the cleaning fluid may be a diversion of process fluids (internal backwashing) or an external source (external backwashing).

Contaminants and the fluids used for cleaning are expelled through the drain header at the base of the unit. Once backwashing is complete, the flow is reversed again and normal filtration resumes.

Cake formation increases filtration efficiency

Whereas the filtration media provides some of the filtration action, collected contaminants further increase efficiency. We call this phenomenon "cake formation." The collected solids, or "cake," trap additional contaminants. The key to making this principle work is timely cleaning—too soon and you lose the benefit, too late and the system flow becomes hindered.

Eaton's filtration systems come factory pre-set to backwash when the differential pressure from inlet to outlet reaches 15 psi (1 bar)—typically the optimum time to initiate backwashing, although this is adjustable.



When your application demands high-pressure operation—up to 1,000 psi (69 bar)—and scalable flexibility, the Eaton AFC-Series is optimal. Systems are available in single, duo, and multiplex configurations to meet your application and business demands.

For liquid filtering applications that require unattended operation, maximum uptime, and solids removal from 1 to 1,700 microns, the Eaton F-Series family of filter systems delivers unbeatable performance.



The revolutionary Eaton AFR-Series delivers high-flow filtration of water-like liquids at retentions as low as 1 micron—in a compact one-square-meter footprint.



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Visit us online at filtration.eaton.com for a complete list of Eaton's filtration products.



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